ATTACHMENT 9

CONTAINER MANAGEMENT PROCEDURES

CONTENTS

9 USE AND MANAGEMENT OF CONTAINERS

9-1 PURPOSE AND SCOPE

ATK Launch Systems – Promontory (ATK) currently manages the drum storage areas at M-186, E-501, M-705S, the solid propellant storage building M-629, storage pad S-633 and solid propellant storage in burn trays and at Burn Station 14 at M-136 in accordance with the Division of Solid and Hazardous Waste Administrative Rules R315-8-9. These waste storage areas are owned and operated by ATK. All containers are being temporarily stored waiting thermal treatment on-site, or shipment off-site for recycling, treatment and/or disposal.

The drum storage site at M-186 is designed to hold 400, 55-gallon drums of various types of waste intended for treatment or disposal. The drum storage site at E-501 is designed to hold 160, 55-gallon drums of various types of waste intended for treatment or disposal. The M-705S storage and consolidation room is designed to store a maximum of 32, 55-gallon drums, both rooms include palletainers of various types of waste intended for consolidation or lab packing. For solid propellant storage capacities, see Module III section E.

9-1.1 Facility Description

The M-186 storage pad is permitted for the storage of the hazardous wastes identified in Permit Condition III.B.1. The storage pad is divided into five storage bays to keep incompatible materials separated. The pad is a coated concrete floor with secondary containment. The M-186 storage facility is shown in Figure E-1 of Attachment 6.

The E-501 storage pad is permitted for the storage of the hazardous wastes identified in Permit Condition III.B.1. The pad is a coated concrete floor with secondary containment. The E-501 storage facility is shown in Figure B-1 of Attachment 6.

The M-705S Storage and Consolidation Room is a single room with a coated concrete floor and secondary containment. It is permitted for the storage of the hazardous wastes identified in Permit Condition III.B.1. The room is equipped with plastic containers to keep incompatible materials separated. Poly-spill pallets are used to provide separate containment for each consolidation drum and lab pack drum as needed. The M-705S storage facility is shown in Figure C-1 of Attachment 6.

M-629 is designed for storage of solid propellant/explosives. This building is sited for the maximum quantity of propellant/explosives based on Quantity/Distance, DOD siting criteria found in the contractor safety manual, 4145.26m. Each building is set up to permit proper grounding and cross bonding as appropriate. The M-629 storage facility is shown in Figure 6-D of Attachment 6.

Storage Pad S-633 is designed for storage of solid propellant/ explosives. It is secured by a perimeter fence, a vehicle access gate that can be locked, and has the appropriate warning signs for a storage area. It has a road base surface, and has lighting protection. Precipitation run-on or run-off is prevented by a combination of diversion ditches, collection ditches and trenches. The S-633 storage pad is shown in Figure J-1 of Attachment 6.

The storage of solid propellant wastes at M-136 includes waste stored in containers placed in burn trays and waste rocket motors that contain solid propellant placed on the ground at Burn Station 14. The storage of waste materials received from off-site at M-136 is permitted in order to facilitate more efficient and safer waste handling practices, and to accommodate delays in waste treatment due to weather or other uncontrollable delays. Storage of this waste will be in compliance with this permit and R315-8-9.

9-2 MANAGEMENT OF CONTAINERS

9-2.1 Types of Containers for Storage

The containers to be used for storage, lab packing, or consolidation at M-186, E-501, and M-705S will meet the UN or USDOT criteria or will be a sturdy liquid tight alternative container. No more than 400 drums will be stored at M-186; 160 drums at E-501; and 32 drums at M-705S. Substitute containers will reduce the number of drums that can be stored based on the volume of the container chosen.

The containers that will be used for storing solid, reactive wastes at M-629 and S-633 include rocket motor cases, covered drums, boxes, plastic bags, woven bags, slids, and US Department of Transportation (DOT) approved shipping containers. The standard containers used at the Facility are described in Attachment 11, Section 11.4.

All solid reactive waste stored at M-136 will be stored in containers as described in Attachment 11.4. Storage of these containers is permitted in liquid tight burn trays or on the ground at Burn Station 14 for intact rocket motors. All containers will be kept closed during storage.

Lab pack and consolidation drums used for different compatibility groups will be separated using a portable secondary containment system (PSCS) such as a Poly-spill pallet. The PSCS will have the capacity to hold a minimum of 55 gallons. Most PSCSs are unsatisfactory for storing most organic waste; therefore, flammable/combustible waste lab packs or consolidation drums will be placed on a pallet and stored on the floor using the room's containment system. Lab pack and containment drums with non-hazardous waste will be stored on the floor. Non-hazardous waste found to be incompatible with solvents would be placed on a PSCS for which it was found to be compatible. All full consolidation or lab pack drums will be transferred from M-705S to a permitted storage facility to stay within M-705S's storage capacity.

TABLE 9-2
HAZARDOUS WASTE COMPATIBILITY FOR STORAGE AT
M-186, E-501, M-705S, M-629, and S-633

General Compatibility Groups	DOT Hazard Class in Group
1. Flammable/combustible liquids and non-flammable solvents	a. Flammable Liquids b. Combustible Liquids
2. Corrosives (acids)	a. Corrosive Liquids (acids only)
3. Corrosives (bases)	a. Corrosive Liquids (bases only)
4. Reactive Chemicals	a. Organic Peroxides b. Oxidizes
5. Toxic Chemicals	a. Toxic b. Infectious
6. Explosives	a. 1.1 b. 1.3

9-2.3 Storage of Containers

M-186, E-501 and M-705S

Before any waste container is accepted at M-705S, E-501, and M-186, it shall be inspected to determine whether the waste matches the identity of the waste specified on the accompanying manifest or shipping paper. In addition, the containers shall be inspected to ensure that they are in good condition, are closed, and labeled in accordance with 40 CFR 262.34 (incorporated by reference in R315-5-3.34) and R315-5-3.31.

If the drum is found to be unacceptable, it must be immediately repacked and relabeled or the waste transferred to a new drum. Each drum or container must be entered into the operator's log (see Section 9-2.5) when the drum or the container is accepted in to the drum storage area. A forklift and/or pallet jack is used to move the pallet into the storage area.

Drums or containers in the holding bays at M-186 and at E-501 will be sampled according to Attachment 1 of this permit. The wastes are accumulated until enough containers exist to complete a load. The containers are then loaded into a truck and shipped to the disposal facility for proper treatment and/or disposal.

All drums stored at the M-705S, E-501, and M-186 storage areas will be stored with either both plugs closed or with the top of the drum sealed. No waste containers will be open unless waste is being added or removed. Adding or removing waste will only occur at these storage facilities if a container is damaged, leaking, for sampling, for waste consolidation, and/or for lab packing. A container may be filled if spilled material is found in a sump during the transfer of waste containers. A container being filled or replaced will be located in the containment area. This will provide containment if any spillage results from an incident during transferring procedures. Precautions to be taken during the transfer of the waste include: insuring all transfer equipment (i.e., hoses, pumps, funnels) is located inside the containment area; ensuring a proper drum is used when transferring waste material.

An aisle space of 30 inches minimum between containers or pallets of containers will be maintained at storage areas M-186 and E-501. Hazardous waste stored in containers at M-705S, M-629, S-633 and M-136 will be stored so that they may be readily inspected and hazardous waste labels are visible. 55-gallon drums may be stacked at a maximum of two high at storage areas M-186 and E-501 only. Containers stored at M-629 and S-633 that can be safely stacked, such as flare or munition boxes, may be stacked to a maximum height of 6 feet.

All storage containers shall have hazardous waste labels attached that meet the requirements of 40 CFR 262.34 (incorporated by reference in R315-5-3.34). All personnel required to complete RCRA labeling shall receive training as appropriate.

M-629 and S-633

All waste propellant/explosives stored at M-629 and S-633 must be entered into the operating record. Building and storage pad inspections must begin upon first receipt of material and end when all hazardous waste has been removed from the building or storage pad. All containers must be kept closed except when adding or removing waste. Adequate aisle space must be provided to permit proper container inspection. Total quantity limitations are as outlined in module III section E.

All containers shall have hazardous waste labels attached that meet the requirements of 40 CFR 262.34 (incorporated by reference in R315-5-3.34).

M-136 Burn Trays and Burn Station 14

All solid reactive wastes received from off-site shall be inspected prior to placement into burn trays or Burn Station 14 at M-136 to determine whether the waste matches the identity of the waste specified on the accompanying manifest or shipping paper. In addition, the containers shall be inspected to ensure that they are in good condition, are closed, and labeled in accordance with 40 CFR 262.34 (incorporated by reference in R315-5-3.34) and R315-5-3.31.

If a container holding hazardous waste is not in good condition, e.g., apparent structural defects, or if it has begun to leak, ATK personnel shall take steps as appropriate to prevent a release from the container to the environment.

Prior to placement of hazardous wastes into burn trays, the tray shall be inspected as outlined in Attachment 2. Once the container or waste rocket motor is received it is placed in a burn tray or Burn Station 14, the date of the placement shall be added to the hazardous waste label.

Containers stored in burn trays at M-136 shall remain closed during storage, except when it is necessary to add or remove waste. A container holding hazardous waste shall not be handled or stored in a manner which may rupture the container or cause it to leak. Containers shall be stored such that the hazardous waste labels may be readily inspected.

9-2.4 Inspections

All container storage areas are inspected on at least a weekly basis. Details of inspection requirements for the storage areas are outlined in Attachment 2. If a container is found with severe corrosion, structural defects, rusty bungs, or leaking, the contents or the entire container must be immediately transferred into a new container. The new container must be numbered and labeled with exactly the same number and label as the old container. The date and time of any transfer action must be noted in the inspection log.

9-2.5 Operating Record

All waste brought into the M-186, E-501, M-705S, M-629, S-633 and M-136 storage areas are entered into a hazardous waste log compliant with R315-8-5.3. This log is kept for all wastes.

If a waste material is consolidated, the consolidation drum is recorded in the hazardous waste log in such a way as to allow the consolidated material to continue to be tracked. Waste materials to be lab packed are placed in a lab pack drum and recorded in a hazardous waste log in such a way as to allow the material and the drum to also be tracked.

The operating record is kept for all hazardous wastes. These records are used to track wastes as they come in from on and off-plant generators and satellite generator facilities.

9-3 LAB PACKS AND WASTE CONSOLIDATION

9-3.1 Lab Pack Preparation

ATK disposes of several hazardous wastes in lab packs. Completed lab packs are stored in the drum storage bays. Before a lab pack is accepted at the drum storage bay, it must be prepared, labeled, and documented in accordance with 40 CFR 262 Subpart C (incorporated by reference in R315-5-3.34) and R315-5-3.31.

Materials in small containers may be stored at the lab packing and consolidation room at M-705S or at M-186 for lab packing or waste consolidation. The materials are separated into compatibility groups based on DOT hazard classification. The materials are generally in small containers ranging from one or two ounces to 5-gallon cans. The small containers are then stored in palletainers or on a shelf until ready to lab pack or consolidate. Incompatible materials are not allowed to be stored in the same palletainer, or containment bay.

9-3.2 Lab Pack Labeling

Each waste container must be labeled with a complete hazardous waste label.

9-3.3 Containment Sealer

The concrete containment area where consolidation and lab packing occur at M-186 and M-705S, is sealed with a high build polyamide epoxy coating system or equivalent. The Material Safety Data Sheet and compatibility chart for this material can be found on the manufacturer's web site.

9-3.4 Lab Pack Compatibility

Under no circumstances will a lab pack contain wastes that are incompatible. Compatibility of wastes will be determined by using the MSDS or other reference sources. If a waste is not found in the reference material, then the material will be assumed incompatible with all wastes and lab packed separately unless research by Environmental Waste Disposal's technical staff documents compatibility. Lab packing will be done in accordance with USDOT regulations and the requirements of the disposal company.

9-4 CONTAINMENT

9-4.1 Capacity of Containment

All the container storage areas and consolidation/lab packing areas at M-186, E-501, and M-705S are designed to hold a minimum of ten percent of the volume of waste stored in the area or the volume of the largest container, which ever is greater. Table 9-5A summarizes the calculations.

TABLE 9-5A

Containment Capacity of Drum Storage Areas

Storage Container	Number of Drums to be Stored	Needed Containment	Containment Available
M-186 Storage Bay	80 Drums	440 Gal	980 Gal
E-501 Storage Pad	160 Drums	880 Gal	895 Gal
M-705S Room	16 Drums*	88 Gal	830 Gal
M-705S Poly-spill pallet	4 Drums	55 Gal	85 Gal
* Includes Palletainers			

Storage building M-629 and storage pad S-633 are not permitted to store liquids. Each container will be inspected to assure no liquids are present upon arrival at the storage facility. Storage building M-629 is fully enclosed to prevent contact of waste with rain water, and does not require secondary containment. Roof leaks must be repaired as soon as is practicable. Storage pad S-633 is located within the M-136 Thermal Treatment Area. Any rain water falling on the pad is collected in the M-136 storm water run-on/run-off control system.

9-4.2 Containment Sealer

The containment area at the M-186 and M-705S storage facilities are coated with an epoxy resin to resist liquid penetration. No leakage or spillage is anticipated during waste storage; however, in the event spills or leaks do occur, the epoxy will prevent the material from penetrating the concrete.

The containment system at E-501 is coated with an epoxy sealer that is a high-build chemical resistant coating. The chemical compatibility and properties of this epoxy are available from the manufacturer.

9-4.3 Removal of Free Liquids From Containment Area

Removal of free liquids at M-186, E-501, and M-705S must be done with a pump or vacuum truck. When free liquids are found in the sump, a portable drum pump, either electric or hand operated, is used to transfer the liquid to a UN 55 gallon drum. A vacuum truck can also be used to pump out collection of rain water and snow melt. Water pumped with the vacuum truck will be taken to a UPDES permitted waste water treatment facility (M-705) for processing. All free liquids taken from the sumps will be managed as hazardous wastes until waste analysis or inspection dictates otherwise.

Precautions will be taken to avoid spills. All spills are cleaned immediately, unless the size demands spill response. After the liquids are transferred into drums, a sample will be taken form each drum according to the sampling procedure in the Waste Analysis Plan, contained in Attachment 1. The drums will be managed as hazardous waste until a determination has been made classifying the contents. If the analysis indicates the liquid is a hazardous waste as defined by the Division of Solid and Hazardous Waste Administrative Rules R315-2, then the drums will continue to be managed as a hazardous waste. If the liquid is a wastewater, the liquid will be taken to M-705 Wastewater Treatment Facility.

Occasionally, small amounts of liquid such as nitroglycerine can drip from rocket motors onto the concrete floor. These drips are typically less than 1-inch in diameter and may drip as much as once per week. Any sign of out-of-place waste will be checked during the regular inspections outlined in Attachment 2. Clean up of dripped materials will be completed as soon as is practicable using rags and acetone or other appropriate cleaners.

M-136 Burn Trays

Although the burn trays at M-136 are permitted for the storage of solid reactive wastes in containers, some of these containers contain small amounts of desensitizing fluid (e.g. diesel, shingle oil, etc.). Therefore, the containment requirements of R315-8-9.6, as discussed below, apply to the storage of wastes in the burn trays.

The burn trays shall be free of cracks or gaps and be sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.

Spilled or leaked waste and accumulated precipitation shall be removed from the burn trays in as timely a manner as is necessary to prevent overflow of the tray. Inspection requirements for burn trays and the accumulation of liquids are outlined in Attachment 2.

If the collected material is a hazardous waste under R315-2, it shall be managed as a hazardous waste in accordance with all applicable requirements of the State of Utah Hazardous Waste Management Rules. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of section 402 of the Clean Water Act, as amended.

9-5 RUN-ON AND RUN-OFF CONTROL

Run-on and run-off water is prevented from entering the M-186 and E-501 drum storage pads. Three sides of each pad contain a curb that is six inches in height and a sloped grade in the front that is three inches above the ground surface. Each pad has sufficient height to prevent run-on from entering the drum storage containment system. Detailed drawings of these facilities are contained in Attachment 6.

The storage facility at M-705S is totally enclosed to prevent any run-on water from entering the building.

Calculations have been performed for the M-186 storage pad and these indicate that no run-on or run-off should enter the storage building and affect the capacity of the containment area. The calculations were based on a 24-hour, 25-year storm event and were submitted with the Part B Permit Application.

The terrain around the burn grounds and storage pad S-633 has been graded and drainage ditches surround the area in order to minimize run-on/run-off. The topography and drainage ditches at M-136, M-225, and S-633 are shown in Attachment 11 Figures 11-1 and 11-2, and Attachment 6 Figure J-1.

In addition, all waste will be in water tight burn trays to prevent run-on and run-off. Waste Rocket motors will be covered to eliminate contact with rain water.

9-6 REQUIREMENTS FOR IGNITABLE AND REACTIVE WASTES

All container storage areas are located more then 50 feet from facility property lines. The aerial photograph contained in Attachment 6 (Figure 6A) shows the property boundaries and facility location.